This is the original annual report for authority: 56-000016.0000

Note created: 4/6/2015

--- The document starts on the next page. ---

ARIZONA DEPARTMENT OF WATER RESOURCES, 3550 NORTH CENTRAL AVENUE, PHOENIX, AZ 85012-2105

A 1
CER 1
F1 1
S 1
W1 2

ANNUAL WATER WITHDRAWAL AND USE REPORT
PROVIDER SUMMARY 2014

OWNER OF GROUNDWATER RIGHT

ARIZONA WATER COMPANY - ORACLE
ATTN: Fred. Schneider
PO BOX 29006
PHOENIX AZ 85038

RECEIVED
MAR 31 2015
ARIZONA DEPARTMENT OF WATER RESOURCES

REPORTING PARTY
56-000016.0000
ARIZONA WATER COMPANY - ORACLE

PO BOX 29006
PHOENIX AZ 85038

TYPE OF RIGHT
LARGE MUNICIPAL PROVIDER MNPCCP

RIGHT / PERMIT NO.
56-000016.0000

TUCSON AMA (602) 771-8585

If any of the information preprinted on this report is incorrect, please make the necessary changes.

PART I GROUNDWATER WITHDRAWN

From Box 10. Schedule A attached

512.61 X $ 3.00 = $1537.83

ACRE - FEET X Withdrawal Fee =

PART II WATER DELIVERED TO OTHER RIGHTS

From Box 24 Schedule D attached

0 ACRE - FEET

PART III WATER RECEIVED FROM OTHER RIGHTS

Total from Schedule E attached

0 ACRE - FEET

PART IV LATE FEES

Complete if filing after March 31. NOTE: A portion of a month after March 31 is counted as a full month.

1) Enter number of months late (Maximum of 6)

2) Calculate Late Report Fee ($25.00 X number of months late)
$

3) Calculate Late Payment Fee (10 % X number of months late X withdrawal fee calculated in Part I
$

PART V TOTAL FEES DUE

Add amounts from Parts I and IV

$1537.83

Mail or hand deliver this report, together with the appropriate schedules, worksheets and fees to the Arizona Department of Water Resources. If mailed, the report must be mailed to P.O. Box 36020 Phoenix, AZ. 85067 and postmarked no later than March 31, 2015. If hand delivered, the report must be received by the Department's Annual Reports & Planning Section no later than 5:00 PM on March 31, 2015.

REPORTS FILED AFTER MARCH 31, 2015 ARE SUBJECT TO LATE FEES (A.R.S. § 45-632) AND PAYMENT OF PREVIOUSLY WAIVED MONETARY PENALTIES ASSOCIATED WITH PRIOR GROUNDWATER CODE VIOLATIONS.

I hereby certify, under penalty of perjury, that the information contained in this report is, to the best of my knowledge and belief, true, correct and complete.

X _____ Vice President - Engineering 03/27/15
AUTHORIZED SIGNATURE TITLE DATE

Fredrick K. Schneider (602) 240-6860
PRINTED NAME TELEPHONE NUMBER

NOTE: THIS REPORT MUST BE FILED EVEN IF NO WATER WAS DELIVERED PURSUANT TO THIS RIGHT.

ARIZONA DEPARTMENT OF WATER RESOURCES

SCHEDULE A

REPORT OF PUMPING

Owner

ARIZONA WATER COMPANY - ORACLE

[1] **RIGHT/PERMIT/BMP Farm Unit NO.**

56-000016.0000

ANNUAL REPORT 2014

Note: Pumpage for each well must be shown on the attached well worksheets. Information for up to four wells may be shown on each worksheet.

[2] DWR WELL REGISTRATION NO. / LOCATION	[3] Depth to Static Water Level (Designated Providers Only)			[4] Ground-water Pumped	RECOVERED WATER PUMPED				[9] Total Water Pumped
10 Q / 40 Q / 160 Q / SEC / TWN / RNG	Date # 1 / Date # 2	Msmt # 1 / Msmt # 2	Well Running? (Y/N)		[5] CAP	[6] SW	[7] EFF/IN	[8] EFF/OUT	
55-209389 #6				37.63					37.63
NE NE NE 8 10.0S 14.0E									
55-506551									
NW NE NE 19 10.0S 14.0E									
55-506552									
SE NE NE 19 10.0S 14.0E									
55-522318 #4				27.21					27.21
NE NE NE 19 10.0S 14.0E									
55-547316 #5				44.40					44.40
NW SW NW 5 10.0S 14.0E									
55-616636 #2				238.64					238.64
NW NW NE 19 10.0S 14.0E									
55-616638 #3				164.73					164.73
SW NE NE 19 10.0S 14.0E									
TOTAL WATER WITHDRAWN (acre-feet)				[10*] 512.61					[11**] 512.61

* ENTER TOTAL ACRE-FEET OF GROUNDWATER WITHDRAWN IN PART I OF THE SUMMARY PAGE.

** ENTER ACRE-FEET OF TOTAL WATER PUMPED IN PART 4.D.1 OF THE SCHEDULE AWS.

ARIZONA DEPARTMENT OF WATER RESOURCES

SCHEDULE F-1 PART 1

POPULATION

ANNUAL REPORT 2014

PROVIDER NAME

1 ARIZONA WATER COMPANY - ORACLE

RIGHT/PERMIT NO.

56-000016.0000

Pursuant to the Third Management Plan, municipal water providers are required to supply the following information. This information is used to determine actual and target GPCD numbers for Large Municipal Providers and for planning information for Small Municipal Providers.

DEFINITION OF A HOUSING UNIT

A housing unit means a group of rooms or a single room occupied as separate living quarters. Examples of a housing unit include a single-family home, a townhouse, a condominium, an apartment, a permanently setup mobile home or a unit in a multi-family complex. A housing unit may be occupied by a family, a family and unrelated persons living together, two or more unrelated persons living together, or by one person. The number of housing units is ***not*** the number of service connections. Mobile homes in an overnight or limited-stay mobile home park or a unit in a campground, motel, hotel, or other temporary lodging facility are not considered housing units.

SINGLE-FAMILY HOUSING

A single-family housing unit is a detached dwelling. Include mobile homes ***not*** located in a mobile home park.

Single-Family Housing	Housing Units
Single-family housing units *(not service connections)* as of July 1, 2013.	2 1850
Indicate the net change (added and deleted) of single-family housing units *(not service connections)* in your service area between July 1, 2013 and July 1, 2014.	3 +88
Total single-family housing units *(not service connections)* as of July 1, 2014.	4 1938

MULTI-FAMILY HOUSING

A multi-family housing unit is a mobile home in a mobile home park or any permanent housing unit having one or more common walls with another housing unit located in a multi-family residential structure, including a unit in a duplex, triplex, four-plex, condominium development, townhouse development or apartment complex. Include mobile homes if they are located in a mobile home park. Do not include mobile homes that are located in an overnight or limited stay mobile home park.

Multi-Family Housing	Housing Units
Multi-family housing units *(not service connections)* as of July 1, 2013.	5 343
Indicate the net change (added and deleted) of multi-family housing units *(not service connections)* in your service area between July 1, 2013 and July 1, 2014.	6 0
Total multi-family housing units *(not service connections)* as of July 1, 2014.	7 343

Please contact the AMA Office if you need assistance completing this form.

(602) 771-8585

ARIZONA DEPARTMENT OF WATER RESOURCES

SCHEDULE F-1 PART 2

MUNICIPAL PROVIDER WATER DELIVERIES

ANNUAL REPORT 2014

PROVIDER NAME

ARIZONA WATER COMPANY - ORACLE

RIGHT/PERMIT NO.

56-000016.0000

Total Production **512.61**

Pursuant to the Third Management Plan (TMP), and the Groundwater Code, large water providers are required to supply the following information. Do not include direct use effluent on this schedule (please use Part 3 of Schedule F-1).

MONTH	DELIVERIES IN ACRE-FEET										
	RESIDENTIAL			NON-RESIDENTIAL					SUB TOTAL		TOTAL
	Single Family	Multi-Family	Industrial	Commercial	Turf Related Facilities*	Other Turf**	Construction	Other***		Other****	
Jan	22.34	1.95	0.00	3.89	0.00	0.00	0.99	0.12	**29.29**	1.29	**30.58**
Feb	22.27	1.81	0.00	3.57	0.00	0.00	1.17	0.80	**29.62**	1.05	**30.67**
Mar	22.96	1.87	0.00	4.86	0.00	0.00	0.33	0.11	**30.13**	5.07	**35.20**
Apr	28.95	2.22	0.00	7.16	0.00	0.00	2.45	0.03	**40.81**	1.66	**42.47**
May	29.89	2.17	0.00	8.08	0.00	0.00	0.97	0.10	**41.21**	1.34	**42.55**
Jun	40.91	2.63	0.00	10.23	0.00	0.00	1.80	0.21	**55.78**	2.79	**58.57**
Jul	36.91	2.66	0.00	9.72	0.00	0.00	1.48	0.13	**50.90**	3.74	**54.64**
Aug	28.64	2.52	0.00	8.09	0.00	0.00	1.16	0.35	**40.76**	1.55	**42.31**
Sep	27.14	3.12	0.00	6.69	0.00	0.00	1.29	0.07	**38.31**	2.09	**40.40**
Oct	24.83	3.38	0.00	9.08	0.00	0.00	1.73	0.89	**39.91**	5.40	**45.31**
Nov	22.71	2.95	0.00	6.22	0.00	0.00	0.04	0.35	**32.27**	1.07	**33.34**
Dec	23.76	1.87	0.00	6.12	0.00	0.00	0.00	0.47	**32.22**	1.31	**33.53**
Total Deliveries	**331.31**	**29.15**	**0.00**	**83.71**	**0.00**	**0.00**	**13.41**	**3.63**	**461.21**	**28.36**	**489.57**
Total Active Connections	**1,794**	**20**	**0**	**113**	**0**	**0**	**3**	**1**	**1,931**		**1,931**

* Turf Related Facilities and landscaped public rights-of-way identified as Individual Users (10 or more acres of turf or other high water use landscaping.)

** Other Turf includes water delivered to other turf areas that are less than 10 acres.

*** Other Non-Residential deliveries include Bulk Deliveries, Flushing, Tank Overflows and Cleaning, Pump Operation, Company Construction, Fire Department Use, Company Uses, Credit Memo, Detecto Meter Use, City and County, and Coin Machine.

**** The attachment also shows additional deliveries including breaks, meter inaccuracies and theft.

DIVISION ORACLE
RIGHT/PERMIT 56-000016.0000

CATEGORIES OF OTHER NON-RESIDENTIAL DELIVERIES

Bulk Deliveries, Company Use Office and Company Use Warehouse are metered deliveries. The remaining deliveries are based on time and flow-rate estimates.

MONTH	DELIVERIES IN ACRE-FEET																		ADD'L DELIVERIES IN ACRE-FEET [2]					TOTAL
	Bulk deliveries	Flushing mains	Flushing services	Flushing hydrants	Tanks Overflow Control	Tanks draining & cleaning	Pumps cooling	Pumps packing loss	Company construction filling main	Company construction flushing main	Fire department use	Company use warehouse	Company use office	Company use process water	Credit memo	Detecto meter use	City and county	Coin machine	SUB TOTAL	Breaks services	Breaks mains	Meter inaccuracies [1]	Theft	SUB TOTAL	
JANUARY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.11	0.00	0.00	0.00	**0.12**	0.05	0.23	1.01	0.00	**1.29**	**1.41**
FEBRUARY	0.00	0.00	0.00	0.00	0.74	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.80**	0.05	0.00	1.00	0.00	**1.05**	**1.85**
MARCH	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.11**	0.05	3.99	1.03	0.00	**5.07**	**5.18**
APRIL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	**0.03**	0.36	0.00	1.30	0.00	**1.66**	**1.69**
MAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.05	0.00	**0.10**	0.00	0.00	1.34	0.00	**1.34**	**1.44**
JUNE	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.05	0.00	**0.21**	0.97	0.00	1.82	0.00	**2.79**	**3.00**
JULY	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.04	0.01	0.00	0.00	0.01	0.00	0.05	0.00	**0.13**	2.09	0.00	1.65	0.00	**3.74**	**3.87**
AUGUST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.00	0.00	0.31	0.00	0.00	0.00	**0.35**	0.18	0.07	1.30	0.00	**1.55**	**1.90**
SEPTEMBER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.06	0.00	**0.07**	0.83	0.00	1.26	0.00	**2.09**	**2.16**
OCTOBER	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.82	0.00	0.05	0.00	**0.89**	0.63	3.58	1.18	0.01	**5.40**	**6.29**
NOVEMBER	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.06	0.00	**0.35**	0.00	0.00	1.07	0.00	**1.07**	**1.42**
DECEMBER	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.05	0.00	**0.47**	0.24	0.00	1.07	0.00	**1.31**	**1.78**
TOTAL DELIVERIES	**0.00**	**0.11**	**0.01**	**0.00**	**1.34**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.37**	**0.05**	**0.00**	**0.00**	**1.38**	**0.00**	**0.37**	**0.00**	**3.63**	**5.45**	**7.87**	**15.03**	**0.01**	**28.36**	**31.99**

[1] Under-registration of 5/8" x 3/4" residential meters.

[2] Estimation methods described below and on attached February 21, 2013 memo:
Main breaks and service breaks are calculated from estimated flow rate when leak discovered times the duration the leak occurred.
Meter inaccuracies were determined through a comprehensive meter study as outlined in the attached February 21, 2013 memo.
Theft volumes are calculated based on field measurements and observations.

ARIZONA DEPARTMENT OF WATER RESOURCES

SCHEDULE F-1 PART 3

MUNICIPAL PROVIDER DIRECT USE EFFLUENT

ANNUAL REPORT 2014

No effluent use or delivery by AWC in 2014

PROVIDER NAME

ARIZONA WATER COMPANY - ORACLE

RIGHT/PERMIT NO.

56-000016.0000

Pursuant to the Third Management Plan, municipal water providers are required to supply the following information. Report the amount of effluent produced, received, delivered, reused, recharged or discharged in your service area in calendar year 2014.

Please attach a list of all the plants at which wastewater generated by uses of water within your service area is treated. List the volume of effluent produced at each plant from uses of water within your service area during calendar year 2014.

Please include all effluent produced in your service area, even if it is sent to a regional or other wastewater treatment facility not owned or operated by you.

PART 1 - TOTAL AVAILABLE EFFLUENT

A. Effluent Produced from Uses of Water within your Service Area:

1.	Effluent produced within service area (include wastewater processed at all treatment plants/entities)	af
2.	Effluent used as process water at treatment plants	af
3.	PartA.1 - Part A.2 (total effluent produced within service area during CY 2014)	af

B. Additional Effluent Sources:

1.	Effluent received from other water right holders	af
2.	Effluent recovered as long-term storage credits pursuant to a Recovery Well (74) Permit (sum of recovered from all 74s)	af
3.	Part B.1 + Part B.2 (total effluent used during CY 2014 that was not produced within the service area during CY 2014)	af

C. Total Available Effluent:

1.	Total from Part 1.A.3 above + Total from Part 1.B.3 above:	af

PART 2 – TOTAL EFFLUENT USE

A. Effluent Delivered/Used within your Service Area:

1.	Effluent delivered/used within your service area for landscape watering	af
2.	Effluent delivered/used within service area for other purposes (please attach additional sheets and list and describe each use separately	af
3.	Part 2.A.1 + Part 2.A.2 (total effluent use within your service area during 2014)	af

B. Effluent Delivered to Other Rights/Permits (as shown on your Schedule D form):

1.	Total Effluent delivered to other water rights/permits	af

C. Total Available Effluent:

1.	Effluent delivered to recharge projects as reported on Water Storage Reports (73s)	af
2.	Effluent delivered/used (from Part 2.A) that is recovered annual storage credits:	af
3.	Part 2.C.1 – Part 2.C.2 (total effluent used for storage projects before evaporation or cuts to the aquifer)	af

D. Effluent Delivered to Entities Other than Rights/Permits/Water Storage Uses:

1.	Effluent delivered for additional uses not associated with a right/permit/water storage use	af

Please explain:

PART 3 – TOTAL EFFLUENT DISCHARGED

A. Effluent Discharged:

1.	Total effluent discharged (not recharged, delivered, or used)	af

Please contact the AMA Office if you need assistance completing this form.

(602) 771-8585

WORKSHEET W-1 2014

GROUNDWATER RIGHT/PERMIT/ BMP Farm Unit NO. 56-000016.0000

1 DWR WELL REGISTRATION NO.	10 Q	40 Q	160 Q	Sec	Twn	Rng
55-209389 #6	NE	NE	NE	8	10.0S	14.0E

2 TYPE OF MEASURING DEVICE	MAKE / MODEL
TOTALIZER	Sensus 101
SIZE: 6"	UNITS MEASURED: GALS
INSTALLATION OR OVERHAUL DATE: Nov 2014	

3 POWER CO. NAME	ACCOUNT NO.	POWER METER NO.
TRICO ELECTRIC POWER	4949100	LHK00434

ENERGY CONSUMPTION	UNITS
52,080	kwh

4 DOES ENERGY METER SERVE USES OTHER THAN THE WELL PUMP ? Yes ☒ No ☐

ENTER "Y" OR "N" IN COLUMN 5 OF SCHEDULE A

WATER TOTALIZING METER READINGS		
5 INITIAL	6 ENDING	7 DIFFERENCE
0 163231000	1,860,000 173,632,000	1,860,000 10,401,000

IF METER WAS REPLACED DURING THE YEAR, INDICATE BEGINNING AND ENDING READING FOR EACH METER IN THE BOXES ABOVE.

8 ACRE FEET	37.63	9 BREAKDOWN ESTIMATE	

Enter total Acre-feet Shown in 10 in one of Columns 4-8 of Schedule A

10 TOTAL IN ACRE-FEET	37.63

---

1 DWR WELL REGISTRATION NO.	10 Q	40 Q	160 Q	Sec	Twn	Rng
55-522318 #4	NE	NE	NE	19	10.0S	14.0E

2 TYPE OF MEASURING DEVICE	MAKE / MODEL
TOTALIZER	Sensus 101
SIZE: 4"	UNITS MEASURED: GALS
INSTALLATION OR OVERHAUL DATE: Nov 2014	

3 POWER CO. NAME	ACCOUNT NO.	POWER METER NO.
SAN CARLOS PROJECT	5989	129312

ENERGY CONSUMPTION	UNITS
42,001	kwh

4 DOES ENERGY METER SERVE USES OTHER THAN THE WELL PUMP ? Yes ☒ No

ENTER "Y" OR "N" IN COLUMN 5 OF SCHEDULE A

WATER TOTALIZING METER READINGS		
5 INITIAL	6 ENDING	7 DIFFERENCE
0 23411000	4,463,000 27,814,000	4,463,000 4,403,000

IF METER WAS REPLACED DURING THE YEAR, INDICATE BEGINNING AND ENDING READING FOR EACH METER IN THE BOXES ABOVE.

8 ACRE FEET	27.21	9 BREAKDOWN ESTIMATE	

Enter total Acre-feet Shown in 10 in one of Columns 4-8 of Schedule A

10 TOTAL IN ACRE-FEET	27.21

---

1 DWR WELL REGISTRATION NO.	10 Q	40 Q	160 Q	Sec	Twn	Rng
55-547316 #5	NW	SW	NW	5	10.0S	14.0E

2 TYPE OF MEASURING DEVICE	MAKE / MODEL
TOTALIZER	Sensus 101
SIZE: 6"	UNITS MEASURED: GALS
INSTALLATION OR OVERHAUL DATE: Nov 2014	

3 POWER CO. NAME	ACCOUNT NO.	POWER METER NO.
TRICO ELECTRIC POWER	4949000	LHK00437

ENERGY CONSUMPTION	UNITS
60,320	kwh

4 DOES ENERGY METER SERVE USES OTHER THAN THE WELL PUMP ? Yes ☒ No ☐

ENTER "Y" OR "N" IN COLUMN 5 OF SCHEDULE A

WATER TOTALIZING METER READINGS		
5 INITIAL	6 ENDING	7 DIFFERENCE
0 220184000	2,693,000 231,959,000	2,693,000 11,775,000

IF METER WAS REPLACED DURING THE YEAR, INDICATE BEGINNING AND ENDING READING FOR EACH METER IN THE BOXES ABOVE.

8 ACRE FEET	44.40	9 BREAKDOWN ESTIMATE	

Enter total Acre-feet Shown in 10 in one of Columns 4-8 of Schedule A

10 TOTAL IN ACRE-FEET	44.40

---

1 DWR WELL REGISTRATION NO.	10 Q	40 Q	160 Q	Sec	Twn	Rng
55-616636 #2	NW	NW	NE	19	10.0S	14.0E

2 TYPE OF MEASURING DEVICE	MAKE / MODEL
TOTALIZER	Sensus 101
SIZE: 6"	UNITS MEASURED: GALS
INSTALLATION OR OVERHAUL DATE: Dec 2014	

3 POWER CO. NAME	ACCOUNT NO.	POWER METER NO.
SAN CARLOS PROJECT	5988	127127

ENERGY CONSUMPTION	UNITS
150,360	kwh

4 DOES ENERGY METER SERVE USES OTHER THAN THE WELL PUMP ? Yes ☒ No

ENTER "Y" OR "N" IN COLUMN 5 OF SCHEDULE A

WATER TOTALIZING METER READINGS		
5 INITIAL	6 ENDING	7 DIFFERENCE
0 256862000	2,874,000 331,750,000	2,874,000 74,888,000

IF METER WAS REPLACED DURING THE YEAR, INDICATE BEGINNING AND ENDING READING FOR EACH METER IN THE BOXES ABOVE.

8 ACRE FEET	238.64	9 BREAKDOWN ESTIMATE	

Enter total Acre-feet Shown in 10 in one of Columns 4-8 of Schedule A

10 TOTAL IN ACRE-FEET	238.64

Oracle P2of2

WORKSHEET W-1 2014

GROUNDWATER RIGHT/PERMIT/ BMP Farm Unit NO. 56-000016.0000

1 DWR WELL REGISTRATION NO.: 55-616638 #3

10 Q	40 Q	160 Q	LOCATION Sec	Twn	Rng
SW	NE	NE	19	10.0S	14.0E

2 TYPE OF MEASURING DEVICE: TOTALIZER
MAKE / MODEL: Sensus 101
SIZE: 6"
UNITS MEASURED: GALS
INSTALLATION OR OVERHAUL DATE: Nov 2014

3 POWER CO. NAME: SAN CARLOS PROJECT
ACCOUNT NO.: 70262
POWER METER NO.: 127216
ENERGY CONSUMPTION: 105,960 UNITS: Kwh

4 DOES ENERGY METER SERVE USES OTHER THAN THE WELL PUMP ? Yes [X] No [ ]
ENTER "Y" OR "N" IN COLUMN 5 OF SCHEDULE A

WATER TOTALIZING METER READINGS		
5 INITIAL	**6** ENDING	**7** DIFFERENCE
0	12,572,000	12,572,000
263217000	304,321,000	41,104,000

IF METER WAS REPLACED DURING THE YEAR, INDICATE BEGINNING AND ENDING READING FOR EACH METER IN THE BOXES ABOVE.

8 ACRE FEET: 164.73 | **9** BREAKDOWN ESTIMATE:

Enter total Acre-feet Shown in 10 in one of Columns 4-8 of Schedule A

10 TOTAL IN ACRE-FEET: 164.73

---

1 DWR WELL REGISTRATION NO.:

10 Q	40 Q	160 Q	LOCATION Sec	Twn	Rng

2 TYPE OF MEASURING DEVICE:
MAKE / MODEL:
SIZE:
UNITS MEASURED:
INSTALLATION OR OVERHAUL DATE:

3 POWER CO. NAME:
ACCOUNT NO.:
POWER METER NO.:
ENERGY CONSUMPTION: UNITS:

4 DOES ENERGY METER SERVE USES OTHER THAN THE WELL PUMP ? Yes [ ] No [ ]
ENTER "Y" OR "N" IN COLUMN 5 OF SCHEDULE A

WATER TOTALIZING METER READINGS		
5 INITIAL	**6** ENDING	**7** DIFFERENCE

IF METER WAS REPLACED DURING THE YEAR, INDICATE BEGINNING AND ENDING READING FOR EACH METER IN THE BOXES ABOVE.

8 ACRE FEET: | **9** BREAKDOWN ESTIMATE:

Enter total Acre-feet Shown in 10 in one of Columns 4-8 of Schedule A

10 TOTAL IN ACRE-FEET:

---

1 DWR WELL REGISTRATION NO.:

10 Q	40 Q	160 Q	LOCATION Sec	Twn	Rng

2 TYPE OF MEASURING DEVICE:
MAKE / MODEL:
SIZE:
UNITS MEASURED:
INSTALLATION OR OVERHAUL DATE:

3 POWER CO. NAME:
ACCOUNT NO.:
POWER METER NO.:
ENERGY CONSUMPTION: UNITS:

4 DOES ENERGY METER SERVE USES OTHER THAN THE WELL PUMP ? Yes [ ] No [ ]
ENTER "Y" OR "N" IN COLUMN 5 OF SCHEDULE A

WATER TOTALIZING METER READINGS		
5 INITIAL	**6** ENDING	**7** DIFFERENCE

IF METER WAS REPLACED DURING THE YEAR, INDICATE BEGINNING AND ENDING READING FOR EACH METER IN THE BOXES ABOVE.

8 ACRE FEET: | **9** BREAKDOWN ESTIMATE:

Enter total Acre-feet Shown in 10 in one of Columns 4-8 of Schedule A

10 TOTAL IN ACRE-FEET:

---

1 DWR WELL REGISTRATION NO.:

10 Q	40 Q	160 Q	LOCATION Sec	Twn	Rng

2 TYPE OF MEASURING DEVICE:
MAKE / MODEL:
SIZE:
UNITS MEASURED:
INSTALLATION OR OVERHAUL DATE:

3 POWER CO. NAME:
ACCOUNT NO.:
POWER METER NO.:
ENERGY CONSUMPTION: UNITS:

4 DOES ENERGY METER SERVE USES OTHER THAN THE WELL PUMP ? Yes [ ] No [ ]
ENTER "Y" OR "N" IN COLUMN 5 OF SCHEDULE A

WATER TOTALIZING METER READINGS		
5 INITIAL	**6** ENDING	**7** DIFFERENCE

IF METER WAS REPLACED DURING THE YEAR, INDICATE BEGINNING AND ENDING READING FOR EACH METER IN THE BOXES ABOVE.

8 ACRE FEET: | **9** BREAKDOWN ESTIMATE:

Enter total Acre-feet Shown in 10 in one of Columns 4-8 of Schedule A

10 TOTAL IN ACRE-FEET:

SCHEDULE S

SERVICE AREA MAP UPDATE

ANNUAL REPORT 2014

ARIZONA DEPARTMENT OF WATER RESOURCES

PROVIDER NAME

ARIZONA WATER COMPANY - ORACLE

RIGHT/PERMIT NO.

56-000016.0000

Pursuant to A.R.S. §45-498 each city, town, private water company and irrigation district in an active management area shall maintain a current map clearly delineating its service area and distribution system in the director's office and shall furnish such other related data as the director may require.

2014 ANNUAL SERVICE AREA AND OPERATING DISTRIBUTION SYSTEM UPDATES RESPONSE FORM

Please complete and return THIS FORM along with your UPDATED DISTRIBUTION SYSTEM (WATER LINE) MAP and WATER SERVICE AREA BOUNDARY MAP to ADWR by MARCH 31, 2015 along with your 2014 ANNUAL WATER WITHDRAWAL & USE REPORT.

Service Area Map Contact Information:

If the contact person in your office for service area map updates has changed in the last year, please email ADWR with the updated contact person information. Please send that information to data_management@azwater.gov.

Please check the appropriate boxes:

OPERATING DISTRIBUTION SYSTEM MAP

Your ***operating distribution system*** includes your water lines, wells, storage tanks, water treatment facilities and related infrastructure used to treat and distribute water to your customers. If you have added any new water lines, wells, treatment or storage facilities over the last calendar year, please submit an updated map.

Were there changes to the operating distribution system within the last year? **(X) Yes ( ) No**

WATER SERVICE AREA BOUNDARY MAP

Your ***service area boundary*** is an area delineated as a 100 foot buffer around the exterior of your water lines, excluding any small municipal providers, other large municipal providers, or areas that you do not serve (exempt domestic well areas) within the exterior boundary of your water lines.

Were there changes to the area in service within the last year ? **( ) Yes (X) No**

If there were changes to either your operating distribution system or your water service area boundary, please submit an updated map(s) in one of the following formats:

- Digital ArcGIS Shapefile
- Digital ArcGIS geodatabase file
- Digital AutoCAD file
- .pdf File
- Hardcopy (If no electronic form exists)

SUBMIT ALL MAP REVISIONS BY MARCH 31, 2015. If you would like to submit your map by uploading to ADWR's ftp or Infoshare websites, please call the Active Management Area at (602) 771-8585 or email us for instructions at data_management@azwater.gov.

Fredrick K. Schneider	Vice President - Engineering	(602) 240-6860
Name-Printed	Title	Phone
Signature	03/27/15	fschneider@azwater.com
	Date	Email

Please contact the AMA Office if you need assistance completing this form.

(602) 771-8585

ARIZONA WATER COMPANY

INTER-OFFICE CORRESPONDENCE

To:	Bill Garfield	*Date:*	February 21, 2013
cc:	James Wilson, Joe Harris, Fred Schneider, Bob Geake		
From:	Joel Reiker		
Subject:	Apparent Water Loss Due to Meter Inaccuracy		

This memo and Attachment A hereto summarize the results of Arizona Water Company's ("Company") meter accuracy study, the purpose of which is to quantify the level of apparent water loss due to customer meter inaccuracy. Based on the study data, I estimate total apparent water loss due to meter inaccuracy to be 2.73% of total production.

ARIZONA WATER COMPANY ⅝ x ¾-INCH METER ACCURACY STUDY RESULTS

Panel A of Attachment A summarizes the results of flow tests conducted on 5,223 ⅝ x ¾-inch meters at the Company's meter shop. The meters subject to testing were pulled from service after an average in-service time of 12.0 years. Meter accuracy diminishes over time, with older meters under-registering relative to newer meters.

As is standard Company practice, the meters pulled from service were tested at flow rates of ¼, ½, 2½ and 10 gallons per minute ("gpm"). As shown in Panel A (columns C through F, lines 12 through 30), average meter accuracies ranged from a low of 71.1% at ¼ gpm in Superior to a high of 100.1% at 2½ gpm in Ajo. Company-wide, meters tested most accurate (98.7%) at 2½ gpm (see column E, line 10 of Panel A). Generally, the ⅝ x ¾-inch meters utilized by the Company are less accurate at medium and low flow rates. This is depicted graphically in the meter accuracy curve shown in Panel A. The American Water Works Association's (AWWA) meter testing standards define low flow as zero to ¼ gpm, medium flow as ¼ to 2 gpm, and high flow as 2 to 15+ gpm (see columns C through F, lines 32 and 33 of Panel A).[1]

DISTRIBUTION OF RESIDENTIAL FLOW BY SEASON

As stated above, meters utilized by the Company are generally less accurate at medium and low flow rates. Therefore, in order to calculate an overall ⅝ x ¾-inch meter accuracy

[1] Davis, S. E. (2005) "Residential Water Meter Replacement Economics," Leakage 2005 Conference Proceedings. p. 5.

percentage that can be applied to total production for the purpose of estimating apparent water loss, it is necessary to estimate the percentage of time the meters operate at low, medium and high flow rates. For this purpose, I relied on the results of a multi-year study conducted by the Metropolitan Domestic Water Improvement District ("District") in Tucson.[2] The results of the District's study of 132 residential 5/8 x 3/4-inch meters over each of the four seasons are shown in Panel B of Attachment A. Line 16 (columns B through D) of Panel B shows the annual weighted average distribution of water use at low, medium and high flows for residential customers of the District who are served by 5/8 x 3/4-inch meters. The District's study indicates that, on average, a residential 5/8 x 3/4-inch meter operates at low flow 10.9% of the time, at medium flow 22.3% of the time, and at high flow 66.8% of the time.

Unfortunately, I was unable to find a similar study of the distribution of water use at varying flows for Commercial customers. As a result, my estimate of total apparent water loss due to meter inaccuracy will only reflect water apparently lost through residential 5/8 x 3/4-inch meters, and not commercial 5/8 x 3/4-inch meters. It should be noted that 97% of the Company's 5/8 x 3/4-inch meters serve residential customers. Further, residential 5/8 x 3/4-inch meters account for 89% of all Company meters.

CALCULATION OF OVERALL METER ACCURACY PERCENTAGE

Using the annual weighted average distribution of flows shown in Panel B, the overall accuracy of the Company's residential 5/8 x 3/4-inch meters can be estimated. Such an estimate is calculated in Panel C, the results of which are shown in column J. Lines 14 through 32 of column J show overall residential 5/8 x 3/4-inch meter accuracy percentages ranging from a low of 93.5% in Stanfield to a high of 98.8% in Ajo. Company-wide, the overall residential 5/8 x 3/4-inch meter accuracy percentage is 95.3% (column J, line 34 of Panel C). As a matter of comparison, the Austin Water Utility located in Austin, Texas estimated the overall meter accuracy percentage of its 5/8 x 3/4-inch meters to be 97.97% using a random sample of 293 meters.[3,4]

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[2] Davis, S. E. (2005).
[3] Strub, Dan & Serguei Boukhonine. "Determining Overall Meter Accuracy for Calculating Water Loss," http://www.tawwa.org/tw11paper/880.pdf.
[4] Meters in the Austin study varied in age from 6 months to 32 years. The average age of the meters was not reported.

APPLICATION OF OVERALL RESIDENTIAL 5/8 x 3/4-INCH METER ACCURACY PERCENTAGE TO TOTAL WATER PRODUCTION AND SALES

Once the overall residential 5/8 x 3/4-inch meter accuracy percentage is calculated (Panel C), it can then be applied to the number of gallons sold to residential customers served by 5/8 x 3/4-inch meters to arrive at an estimate of the apparent water loss, in terms of gallons, associated with that sub-class of customers. Column H of Panel D (line 32) shows this estimate, 325,744.4 thousand gallons, based on actual 2011 water sales.

The final step is to calculate a percentage of total water production that can be used as an estimate of apparent water loss due to meter inaccuracy. This estimate, 2.73%, is shown in Column J of Panel D (line 32). It should be noted that this estimate only relates to the portion of apparent water loss that is associated with residential 5/8 x 3/4-inch meters.

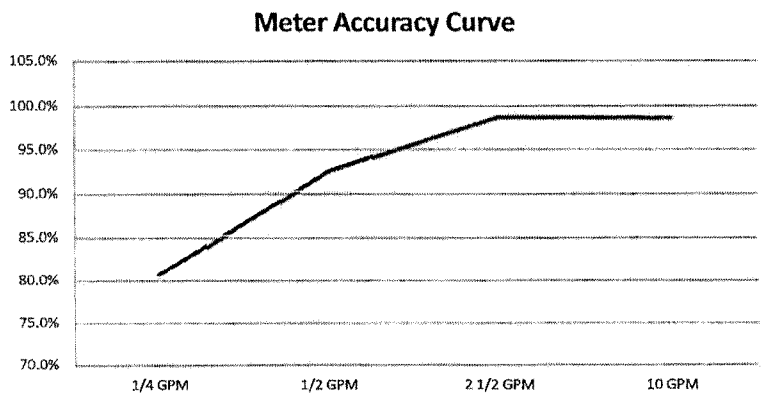
CONCLUSION

The Company's estimate of overall apparent water loss is comparable to the Austin Water Utility's estimates of customer meter accuracy. I believe the Company's meter accuracy study can be useful in estimating the value of ensuring meter accuracy relative to leak detection efforts.

jmr

PANEL A: ARIZONA WATER COMPANY ⅝ x ¾ -INCH METER ACCURACY STUDY RESULTS

Line No.		[A] No. of Tests	[B] Average Age of Meter (years)	[C] ACCURACY (%) 1/4 GPM	[D] 1/2 GPM	[E] 2 1/2 GPM	[F] 10 GPM
10	Total Company	5,223	12.0	80.6%	92.4%	98.7%	98.6%
12	Apache Junction	1,499	11.2	74.9%	90.7%	98.9%	98.8%
13	Superior	126	12.7	71.1%	89.8%	98.8%	98.6%
14	Miami	595	12.2	82.2%	92.5%	98.9%	98.6%
15	Bisbee	240	13.3	81.5%	92.0%	98.7%	98.7%
16	Sierra Vista	49	12.7	83.7%	93.1%	98.6%	98.4%
17	San Manuel	323	11.8	88.1%	95.7%	99.3%	99.2%
18	Oracle	244	16.3	90.2%	95.2%	99.4%	99.3%
19	SaddleBrooke	-	-	n/a	n/a	n/a	n/a
20	Winkelman	18	12.1	88.4%	94.5%	99.3%	98.9%
21	Casa Grande	758	10.9	77.6%	91.6%	97.9%	98.2%
22	Stanfield	6	12.0	77.8%	88.7%	97.7%	97.7%
23	Coolidge	433	11.3	78.3%	91.7%	98.3%	98.4%
24	White Tank	45	11.0	80.6%	91.3%	97.3%	98.2%
25	Ajo	45	13.2	93.6%	98.1%	100.1%	99.6%
26	Lakeside	116	11.3	81.2%	93.5%	99.1%	98.7%
27	Overgaard	227	12.2	90.9%	95.8%	99.0%	99.0%
28	Sedona	199	12.9	87.5%	94.7%	98.8%	99.0%
29	Pinewood	262	13.9	88.8%	94.1%	98.4%	97.0%
30	Rimrock	38	11.6	87.0%	95.5%	100.0%	99.4%
32				LOW FLOW 0 - 0.25 GPM[1]	MEDIUM FLOW 0.25 - 2 GPM[1]	HIGH FLOW 2 - 15+ GPM[1]	



[1]AWWA Established Flow Ranges

PANEL B: DISTRIBUTION OF RESIDENTIAL FLOW BY SEASON (⅝ x ¾ -INCH)[2]

Line No.		[A]	[B]	[C]	[D]	[E]
			PERCENTAGE OF TIME			
			Low Flow 0 - 0.25 GPM	Medium Flow 0.25 - 2 GPM	High Flow 2 - 15+ GPM	Total
11	Spring		13.9%	19.0%	67.1%	100%
12	Summer		10.5%	16.0%	73.4%	100%
13	Fall		11.5%	25.3%	63.3%	100%
14	Winter		7.8%	33.6%	58.6%	100%
15						
16	Annual Weighted Avg.		10.9%	22.3%	66.8%	100%

[2]Source: Metropolitan Domestic Water Improvement District of Northwest Tucson, Arizona. See Davis, S. E. (2005) "Residential Water Meter Replacement Economics," *Leakage 2005 Conference Proceedings.*

PANEL C: CALCULATION OF OVERALL METER ACCURACY PERCENTAGE (⅝ x ¾ -INCH)

Overall Meter Accuracy % = [(LOW FLOW ACCURACY %) x (LOW FLOW % OF TIME)] + [(MEDIUM FLOW ACCURACY %) X (MEDIUM FLOW % OF TIME)] + [(HIGH FLOW ACCURACY %) X (HIGH FLOW % OF TIME)]

Line No.		[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]
			FLOW ACCURACY (PANEL A)				PERCENTAGE OF TIME (PANEL B)				Overall Residential ⅝ x ¾ -inch Meter Accuracy %		
			Low	Medium	High[3]		Low Flow	Medium Flow	High Flow		[(B X F) + (C X G) + (D X H)]		
14	Apache Junction		74.9%	90.7%	98.9%		10.9%	22.3%	66.8%		94.4%		
15	Superior		71.1%	89.8%	98.7%		10.9%	22.3%	66.8%		93.7%		
16	Miami		82.2%	92.5%	98.8%		10.9%	22.3%	66.8%		95.6%		
17	Bisbee		81.5%	92.0%	98.7%		10.9%	22.3%	66.8%		95.4%		
18	Sierra Vista		83.7%	93.1%	98.5%		10.9%	22.3%	66.8%		95.7%		
19	San Manuel		88.1%	95.7%	99.3%		10.9%	22.3%	66.8%		97.3%		
20	Oracle		90.2%	95.2%	99.4%		10.9%	22.3%	66.8%		97.4%		
21	SaddleBrooke[4]		90.2%	95.2%	99.4%		10.9%	22.3%	66.8%		97.4%		
22	Winkelman		88.4%	94.5%	99.1%		10.9%	22.3%	66.8%		96.9%		
23	Casa Grande		77.6%	91.6%	98.1%		10.9%	22.3%	66.8%		94.4%		
24	Stanfield		77.8%	88.7%	97.7%		10.9%	22.3%	66.8%		93.5%		
25	Coolidge		78.3%	91.7%	98.3%		10.9%	22.3%	66.8%		94.7%		
26	White Tank		80.6%	91.3%	97.8%		10.9%	22.3%	66.8%		94.4%		
27	Ajo		93.6%	98.1%	99.9%		10.9%	22.3%	66.8%		98.8%		
28	Lakeside		81.2%	93.5%	98.9%		10.9%	22.3%	66.8%		95.8%		
29	Overgaard		90.9%	95.8%	99.0%		10.9%	22.3%	66.8%		97.4%		
30	Sedona		87.5%	94.7%	98.9%		10.9%	22.3%	66.8%		96.7%		
31	Pinewood		88.8%	94.1%	97.7%		10.9%	22.3%	66.8%		95.9%		
32	Rimrock		87.0%	95.5%	99.7%		10.9%	22.3%	66.8%		97.3%		
34	Total Company		80.6%	92.4%	98.7%		10.9%	22.3%	66.8%		95.3%		

[3]Average of 2 ½- and 10-GPM test results from PANEL A.
[4]Meter flow accuracy based on Oracle.

PANEL D: APPLICATION OF OVERALL RESIDENTIAL ⅝ x ¾ -INCH METER ACCURACY PERCENTAGE TO TOTAL PRODUCTION & SALES

Line No.		[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]
		2011 Water Sales (M Gals.)							Apparent Water Loss (Residential ⅝ x ¾ -inch)				
		Total	Residential ⅝ x ¾ -Inch	Residential ⅝ x ¾ -Inch as % of Total	2011 Total Production (M Gals.)		Overall Residential ⅝ x ¾ -inch Meter Accuracy % (PANEL C)		M Gallons [(B ÷ F) - B]	As % of Total Water Sales [H ÷ A]	As % of Total Production [H ÷ D]	Residential ⅝ x ¾ -Inch Avg. Volumetric Revenue Per M Gal. Sold	Estimated Annual Revenue Loss [H X K]
12	Apache Junction	2,299,991.6	1,339,794.0	58.3%	2,510,461.0		94.4%		79,362.4	3.45%	3.16%	$ 2.76	$ 219,358
13	Superior	165,552.3	81,171.2	49.0%	181,126.0		93.7%		5,437.6	3.28%	3.00%	$ 2.76	$ 15,030
14	Miami	286,269.2	186,256.5	65.1%	330,909.8		95.6%		8,669.7	3.03%	2.62%	$ 2.76	$ 23,963
15	Bisbee	324,768.5	184,268.8	56.7%	387,902.5		95.4%		8,978.5	2.76%	2.31%	$ 4.28	$ 38,464
16	Sierra Vista	396,222.7	273,472.4	69.0%	418,960.6		95.7%		12,365.0	3.12%	2.95%	$ 1.71	$ 21,181
17	San Manuel	138,665.2	113,850.3	82.1%	154,176.0		97.3%		3,210.5	2.32%	2.08%	$ 3.29	$ 10,566
18	Oracle	119,012.0	88,440.1	74.3%	138,630.5		97.4%		2,332.7	1.96%	1.68%	$ 4.84	$ 11,297
19	SaddleBrooke	17,721.5	4,378.2	24.7%	17,721.5		97.4%		115.5	0.65%	0.65%	$ 4.10	$ 473
20	Winkelman	30,479.6	14,511.3	47.6%	31,787.0		96.9%		468.4	1.54%	1.47%	$ 1.84	$ 862
21	Casa Grande	4,441,970.0	2,180,005.3	49.1%	5,026,006.7		94.4%		129,622.7	2.92%	2.58%	$ 1.73	$ 224,118
22	Stanfield	29,438.4	17,523.6	59.5%	32,066.2		93.5%		1,221.4	4.15%	3.81%	$ 3.04	$ 3,713
23	Coolidge	650,101.4	387,986.3	59.7%	445,039.0		94.7%		21,925.8	3.37%	4.93%	$ 1.73	$ 37,910
24	White Tank	393,049.8	273,381.3	69.6%	406,735.0		94.4%		16,081.2	4.09%	3.95%	$ 2.24	$ 36,022
25	Ajo	47,413.5	32,634.7	68.8%	52,087.0		98.8%		400.5	0.84%	0.77%	$ 5.69	$ 2,280
26	Lakeside	287,793.0	214,120.2	74.4%	317,975.0		95.8%		9,434.8	3.28%	2.97%	$ 4.95	$ 46,721
27	Overgaard	127,618.8	112,984.4	88.5%	148,385.0		97.4%		3,021.5	2.37%	2.04%	$ 4.95	$ 14,962
28	Sedona	1,024,320.9	533,165.0	52.1%	1,125,067.0		96.7%		17,997.2	1.76%	1.60%	$ 1.97	$ 35,508
29	Pinewood	86,259.0	73,542.6	85.3%	118,059.0		95.9%		3,121.5	3.62%	2.64%	$ 4.03	$ 12,576
30	Rimrock	76,118.8	72,611.6	95.4%	95,647.0		97.3%		1,977.5	2.60%	2.07%	$ 4.03	$ 7,968
31													
32	Totals	10,942,766.2	6,184,097.8		11,938,741.8				325,744.4	2.98%	2.73%		$ 762,972

RECEIVED
JUL 17 2015 ARIZONA DEPARTMENT OF WATER RESOURCES
ADWR

SCHEDULE CER 2014

CONSERVATION EFFORTS REPORT

MODIFIED NON-PER CAPITA CONSERVATION PROGRAM

ANNUAL REPORT 2014

ARIZONA WATER COMPANY – ORACLE

56-000016.0000

SERVICE AREA INFORMATION

Total residential and non-residential connections reported on your most recent Provider Profile:	1,792	☑ Tier 1 (1 – 5000) ☐ Tier 2 (5001 – 30,000) ☐ Tier 3 (more than 30,000)
Total residential and non-residential connections as of December 31, 2014: (*See Schedule F1, Part 2, Box 21)*	1,931	☑ Tier 1 (1 – 5000) ☐ Tier 2 (5001 – 30,000) ☐ Tier 3 (more than 30,000)
Did your system transition to a higher tier during this reporting year?	Yes ☐	No ☑
If yes, has a new Provider Profile been submitted?	Yes ☐	No ☐ If no, please attach
Have you submitted a copy of your current rate structure to ADWR?	Yes ☐ _____ Date	No ☑ Please attach.

PUBLIC EDUCATION PROGRAM

See page 3 for additional instructions. You may attach additional pages, information, or materials.

1. Communication to Customers: Describe how you communicated to customers (at least twice per year) about the importance of conservation and the availability of water conservation information. Please include the following information:

- The way messages are provided, such as on water bills, bill inserts, newsletters, websites, etc.
- How often the communication channel was used
- Number of customers reached (or an estimate)
- What worked and what will be modified or discontinued
- Plans for the current calendar year

Please see the attached information for Oracle's Public Education Program and Written Water Conservation Information.

2. Written Materials: Describe the free written conservation information you have available for customers and the locations where available. Please include the following information:

- Brief description of materials available
- How customers obtain the information, e.g. mailed upon request; available in office, etc.
- Locations where available
- Plans for the current calendar year

SCHEDULE CER 2014

ARIZONA DEPARTMENT OF WATER RESOURCES

BEST MANAGEMENT PRACTICES (BMPs) IMPLEMENTED PER YOUR MNPCCP REQUIREMENTS

Describe the following for each BMP:

1. Activities - What was developed, created or implemented, such as the processes, methods or events undertaken; where and how a program was made available; the participants or target audience.

Note: For a BMP implemented through participation in a partnership, describe the nature of your participation such as staff time, funding, and/or provision of supplies.

2. Results - What was accomplished, such as the number of activities, programs or materials created, the participants reached and their response, and other quantitative data.

3. Assessment - What worked and what needs modification or improvement; reasons for continuing or discontinuing an activity, such as whether or not a target audience was reached, materials or activities were effective, or the level of participation was adequate.

4. Plans - Whether or not a program or activity will be continued, discontinued, increased, decreased, or modified.

5. Explanation of Substitution (if applicable) -Identify any substitute BMPs, and describe the reasons for the substitution, when it was made and the relevance of the substitute BMP to your service area characteristics or water use patterns.

BMP Number	BMP Title/Name	Activities, Results, Assessment, Plans, Substitutions
4.2	Meter Repair and/or Replacement Program	Please see the attached information detailing the activities, results and assessments of Oracle's Best Management Practices.

OPTIONAL: BMPs IMPLEMENTED IN ADDITION TO THOSE DESCRIBED ABOVE

If you implemented more BMPs than required, please list and/or describe them. This will enable ADWR to assess and document water conservation efforts around the state.

In addition to those described above, the following BMPs have been implemented in the Oracle water system:

BMP 3.6 – Customer High Water Use Inquiry Resolution
BMP 3.8 – Water Waste Investigations and Information
BMP 4.1 – Leak Detection Program

SIGN AND CERTIFY

Judith K Schneider
SIGNATURE OF PERSON COMPLETING THIS FORM

Vice President - Engineering
TITLE

7-16-2015
DATE

Fredrick K. Schneider
PRINTED NAME

fschneider@azwater.com
EMAIL ADDRESS

More Information:

Description of the BMPs

Another copy of the Schedule CER form

Contact ADWR Water Management Division at (602) 771-8585 or Ruth Greenhouse mailto:rgreenhouse@azwater.gov

PUBLIC EDUCATION PROGRAM

The following messages scroll across the top of the Company's conservation page on its website:

If you use an automatic dishwasher, be sure it is fully loaded each time it is used. A dishwasher uses about 12 gallons for each use and is the biggest water use in the kitchen.

A conventional toilet uses about seven gallons of water per flush. You can save water by reducing the amount of water used per flush and by not using the toilet as a trash can.

Plant drought resistant, low water-use trees and plants for your landscaping. Many beautiful trees and plants thrive with far less watering than other species.

Surround the plants in your landscape with a bed of mulch or other organic material or gravel. This bed will slow evaporation and discourage weed growth.

Water your lawn only when needed. A good way to see if your lawn needs watering is to step on the grass and if it springs back, it does not need water.

Most leaks, aside from toilets, are from worn or damaged washers in your faucets. Check all faucets inside and outside your house at least twice a year and replace faulty washers as necessary.

Water your landscape during the coolest part of the day. Automatic sprinkler and bubbler systems which operate during the night reduce the loss of water due to evaporation.

Conserve water when cleaning your sidewalk, patio, and driveway by using a broom or blower instead of washing them off with the garden hose.

Conserve water by taking shorter showers. Long, hot showers can waste five to ten gallons of water for every unneeded minute.

Do not let your hose run constantly when washing your car. Use a bucket for soapy water to wash with and only use the hose for rinsing.

Many different kinds of water saving devices are available today. When replacing devices such as toilets and showerheads, use the low-flow types. Inexpensive restrictors are also available to improve existing fixtures.

A little leak can waste a lot of water. Just a slow drip can waste up to 15 to 20 gallons per day. A hose left running outside can waste thousands of gallons in a single day.

Water Conservation Programs are available for all customers. Information and Appointments for home visits and water audits can be obtained by calling the Division Office.

Customer bills include Arizona Water Company's website address (www.azwater.com) which has a page dedicated solely to water conservation (www.azwater.com/set_wc.html). The conservation page contains information on water conservation, available publications and links to other conservation-oriented websites from organizations such as the American Water Works Association (AWWA), the Arizona Department of Water Resources (ADWR), and the Environmental Protection Agency (EPA).

The following brochures, activity books, handouts and giveaways were available for the Company's Oracle customers in 2014:

BROCHURES

25 Things You Can Do To Prevent Water Waste
55 Facts, Figures & Follies of Water Conservation
About Groundwater Protection
About Water Emergencies
Go Ahead, Call Me Cheap
Drip Irrigation*
Drought? What Drought?
Go Green With a Water Smart Lawn
How Low Can You Flow, The Inside Story
Interior Plumbing Retrofits*
It's a Natural ...
Landscape Plants of the Desert
Landscaping to Save Water
Landscape Watering by the Numbers
Rainwater Harvesting
Water Conservation for Multi-Family Users*
Water Conservation for Non-Residential Users*
Water – Our Most Valuable Resource
Water Saving Tips for Apartment Dwellers*
Water Saving Tips for Your Household*
Watering Schedule*
Who Knew? Fascinating Facts About Water
Why Does My Tap Water Look Milky?*
Why Repair Leaks?*
Wise Water Use Outdoors
Xeriscape*

*Can be downloaded from the Company's conservation web page

ACTIVITY BOOKS

Let's Learn About Saving Water Inside and Out
Water Conservation
Know What? We Use Water Wisely
Discover the Waters of Arizona

HANDOUTS & GIVEAWAYS

Balloons
Bookmarks
Jar Opener
Litter Bag
Water Bottles
Mini Fun Kit with Drip Gauge
Water Conservation Kit
Water Awareness Kit
Stained Glass Coloring Sheet
Zip-top School Pouch (includes pen, pencil and ruler)
Aerators
Flow Restrictor Kit
Sprinkler Gauge

In 2014, over 1,500 pieces of written information and giveaways were distributed by the San Manuel water system. The San Manuel water system coordinates the distribution of written information and giveaways for the San Manuel, Oracle and Winkelman water systems.

The Company is satisfied with the number of customers reached and the quantity of materials distributed in the Oracle water system in 2014. As always, the Company will look to improve upon the amount of written information and giveaways distributed. The San Manuel local office will also continue to provide materials for local school events and other organizations in the Oracle water system upon request. In addition, the Company will continue to improve on its conservation web page in order to provide customers with additional downloadable material, seasonal conservation newsletters, and conservation oriented websites.

METER REPAIR AND/OR REPLACEMENT PROGRAM (4.2)

Activities Undertaken to Implement the BMP:

The Company's meter repair and replacement program establishes criteria for meter removal and replacement. The Company's Meter Shop has established specific replacement criteria based on total gallons (primary) and length of time in service (secondary) for meters in the Oracle water system (see chart). The Meter Shop also performs periodic tests on the Oracle water system's meters to provide an ongoing assessment of the suitability of meter replacement criteria. Meters are tested during their time in service and after they have been replaced, and this information, coupled with water quality data is used to make adjustments to the replacement schedules. In this manner, the Company ensures that meter accuracy is maintained within limits and confirmed through meter testing.

METER SIZE	CHANGE-OUT SCHEDULE
5/8"	1 MG/10 YEARS
1"	3 MG/10 YEARS
1.5"	6 MG/ 4 YEARS
2"	8 MG/4 YEARS
2" TURBO	15 MG/4 YEARS
3" TURBO	25 MG/4 YEARS
4" TURBO	35 MG/ 4 YEARS
6" TURBO	50 MG/4 YEARS
8" TURBO	70 MG/4 YEARS
2" COMPOUND	3.5 MG/4 YEARS
3" COMPOUND	3.5 MG/4 YEARS
4" COMPOUND	6 MG/4 YEARS
6" COMPOUND	8.5 MG/4 YEARS

MG=MILLION GALLONS

METER SIZE	CHANGE-OUT SCHEDULE
2" OMNI TURBO	40 MG/10 YEARS
3" OMNI TURBO	60 MG/10 YEARS
4" OMNI TURBO	75 MG/10 YEARS
6" OMNI TURBO	200 MG/10 YEARS
2" OMNI COMPOUND	7 MG/5 YEARS
3" OMNI COMPOUND	10 MG/5 YEARS
4" OMNI COMPOUND	15 MG/5 YEARS
6" OMNI COMPOUND	20 MG/5 YEARS

Results/Accomplishments:

In 2014, there were 74 meters either repaired or replaced for the Oracle water system. In addition, Meter Shop personnel field calls on a regular basis from other water utilities and professional organizations to discuss aspects of the Company's meter repair and replacement program.

Assessment and Future Plans:

This has been a very successful BMP for the Company. Due to the recent introduction of new lead free meters, the Company's Meter Shop may potentially increase the number of periodic tests for these meters in the Oracle water system to determine if modifications to the change-out schedule needs to be made.

EASTERN GROUP BILLING RATE CHART

April 1, 2015

Oracle (103) / Saddlebrook Ranch (105)

RATES Effective 3/1/13	Deposit Effective 1/01/15	Tax Rates Effective 9/01/14	MAP Effective 1/01/15
WR		**WC**	
5/8" $ 26.94		Fire Sprinkler $27.00	
1" 67.35		5/8" $ 26.94	
2" 215.52		1" 67.35	
3" 431.04		2" 215.52	
4" 673.50		3" 431.04	
6" 1347.00		4" 673.50	
8" 2155.20		6" 1347.00	
10" 3098.10		8" 2155.20	
		10" 3098.10	
5/8"			
Tier 1 – 0 to 30 usage	.26050	5/8"	
Tier 2 – 31 to 100 usage	.54650	Tier 1 – 0 to 100 usage	.54650
Tier 3 – 101 and above	.72460	Tier 2 – 101 and above	.72460
1"		1"	
Tier 1 – 0 to 300 usage	.54650	Tier 1 – 0 to 300 usage	.54650
Tier 2 – 301 and above	.72460	Tier 2 – 301 and above	.72460
2"		2"	
Tier 1 – 0 to 1000 usage	.54650	Tier 1 – 0 to 1000 usage	.54650
Tier 2 – 1001 and above	.72460	Tier 2 – 1001 and above	.72460
3"		3"	
Tier 1 – 0 to 2200 usage	.54650	Tier 1 – 0 to 2200 usage	.54650
Tier 2 – 2201 and above	.72460	Tier 2 – 2201 and above	.72460
4"		4"	
Tier 1 – 0 to 3500 usage	.54650	Tier 1 – 0 to 3500 usage	.54650
Tier 2 – 3501 and above	.72460	Tier 2 – 3501 and above	.72460
6"		6"	
Tier 1 – 0 to 7250 usage	.54650	Tier 1 – 0 to 7250 usage	.54650
Tier 2 – 7251 and above	.72460	Tier 2 – 7251 and above	.72460
8"		8"	
Tier 1 – 0 to 11750 usage	.54650	Tier 1 – 0 to 11750 usage	.54650
Tier 2 – 11751 and above	.72460	Tier 2 – 11751 and above	.72460
10"		10"	
Tier 1 – 0 to 17000 usage	.54650	Tier 1 – 0 to 17000 usage	.54650
Tier 2 – 17001 and above	.72460	Tier 2 – 17001 and above	.72460
WI		**Construction (OT)**	
5/8" $ 26.94		1" 67.35	
1" 67.35		2" 215.52	
2" 215.52		3" 431.04	
3" 431.04		4" 673.50	
4" 673.50			
6" 1347.00		1"	
8" 2155.20		Tier 1 – 0 to 300 usage	.54650
10" 3098.10		Tier 2 – 301 and above	.72460
		2"	
All meter sizes and all gallons	.54650	Tier 1 – 0 to 1000 usage	.54650
		Tier 2 – 1001 and above	.72460
		3"	
		Tier 1 – 0 to 2200 usage	.54650
		Tier 2 – 2201 and above	.72460
		4"	
		Tier 1 – 0 to 3500 usage	.54650
		Tier 2 – 3501 and above	.72460

SALES FOR RE-SALE

MINIMUM-REFER TO WR **ALL METER SIZES AND ALL GALLONS** .54650

EASTERN GROUP BILLING RATE CHART

April 1, 2015

Oracle (103) / Saddlebrook Ranch (105)

MAP= MONITORING ASSISTANCE PROGRAM SIB = SYSTEM IMPROVEMENT BENEFIT MEC = MONTHLY EFFICIENCY CREDIT

MAP	SIB	MEC
103 .23		

GUARANTEE DEPOSIT - WR

5/8"	90.00
1"	235.00
2"	2575.00

GUARANTEE DEPOSIT - WC

5/8"	125.00
1"	245.00
2"	2270.00

WATER USE TAX: .00065 ACC TAX: .00220

System	Water System	Inside	Outside	County
103	11-019		.06920	PI
105	11-018		.06920	PI